TEJUS
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Test Report on Cement

Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Sample ID	Cement
Date of Sample Tested	30.04.2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	37 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	359Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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TEJUS CONSULTANTS

Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. N Lokanath Reddy

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	PCC
Location/Source	At Site/Plant	Date of Sampling	30.04.2019
Period of Soaking	24 hours	Date of Testing	30.04.2019

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.		662	637	671	
B	Weight of oven - dry sample gm.		652	628	661	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1686	1686	1698	
E	Bulk specific gravity	B / (C + A - D)	2.598	2.779	2.665	**2.681**
G	Absorption (%)	(A - B) *100 / B	1.534	1.433	1.513	**1.493**

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Project Division
Yelahanka Zone
Bangalore

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Test Report on Cement

Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Sample ID	Cement
Date of Sample Tested	30.04.2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	355 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	3mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Consultants	Tejus Consultants, Bangalore
Contractor	Sri. N Lokanath Reddy

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	30.04.2019
		Date of Testing	30.04.2019

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	210	210	7.00	93.00	90 - 100
2.36 mm	310	520	17.33	82.67	75 - 100
1.18 mm	410	930	31.00	69.00	55 - 90
0.600 mm	485	1415	47.17	52.83	35 -59
0.300 mm	750	2165	72.17	27.83	8-30
0.150 mm	620	2785	92.83	7.17	0 - 10
Pan	215	3000			-

Remarks : Satisfactory / Not Satisfactory

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CONSULTANTS & TESTING CENTER

Highway / Building Material Testing | Structural Strengthening Solutions
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Soil Stabilization and Shoring Services | Non - Destructive Testing

NABL ACCREDITED AS PER ISO/IEC 17025:2005

CECTC-IWD-009-2019-20

Date: 30.04.2019

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

: **Bruhat Bangalore Mahanagar Palike.**

: **Sri. N. Lokanath Reddy,** Contractor, Bangalore.

: Construction of SamudhayaBhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara.

: 8mm,10mm, 12mm,16mm Fe 500 TMT Bars

: IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

: 30.04.2019

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress ($N/mm^{2)}$	Tensile strength ($N/mm^{2)}$	Elongation, percent on gauge length
1	8	0.395	513	558	17
2	10	0.617	561	615	18
3	12	0.888	597	643	19
4	16	1.583	609	659	20

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For Civil Experts

Asst. Executive Engineer
Project Director
Yelahanka Zone
Bangalore

Authorised Signature

TEJUS
CONSULTANTS

TEST REPORT

Clients	Bruhath Bangalore Mahanagara Palike
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. N Lokanath Reddy
Total Weight in gm:	3000

SIEVE ANALYSIS

Type of Material	40 mm down size			Proposed Use	PCC
Sample Location	At Site/Plant			Date of Sampling	30.04.2019
				Date of Testing	30.04.2019

IS Sieve Size	Weight Retained in gm	Cum. Weight Retained in gm	Cumulative Weight Retained in %	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	80	80	2.67	97.33	95-100
20.00mm	1400	1480	49.33	50.67	30-70
10.00mm	970	2450	81.67	18.33	10-35
4.75mm	452	2902	96.73	3.27	0-5
Pan	98	3000	100.00	0.00	

Remarks : ✓ Satisfactory / Not Satisfactory

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Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Grade of concrete:	M25
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	02.05.19	09.05.19	7 days	8.300	22500	364	16.18	15.57
2	02.05.19	09.05.19	7 days	8.320	22500	362	16.09	
3	02.05.19	09.05.19	7 days	8.325	22500	325	14.44	

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Project Division
Yelahanka Zone
Bangalore

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TEST REPORT

Client:	Bruhat Bangalore Mahanagara Palike
Project:	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Consultants	Tejus Consultants, Bangalore
Contractor	Sri. N Lokanath Reddy

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	02.05.19
		Date of Testing	02.05.19

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	230	230	7.67	92.33	90 - 100
2.36 mm	300	530	17.67	82.33	75 - 100
1.18 mm	410	940	31.33	68.67	55 - 90
0.600 mm	482	1422	47.40	52.60	35 -59
0.300 mm	710	2132	71.07	28.93	8-30
0.150 mm	625	2757	91.90	8.10	0 - 10
Pan	243	3000			-

Remarks : Satisfactory / Not Satisfactory

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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Test Report on Cement

Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Sample ID	Cement
Date of Sample Tested	02.05.19
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	39	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	251	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	2.000	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	29.00%	25 % to 35

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Asst. Executive Engineer
Project Division
Kalasipalya Zone
Bangalore

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TEST REPORT

Client	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. N Lokanath Reddy

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Location/Source	At Site/Plant	Date of Sampling	02.05.19
Period of Soaking	24 hours	Date of Testing	02.05.19

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	652	680	660	
B	Weight of oven - dry sample gm.	642	670	650	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1685	1703	1690	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.653	2.659	2.653	**2.655**
F	Absorption (%) $\frac{(A-B)*100}{B}$	1.558	1.493	1.538	**1.530**

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Project Division
Yelahanka Zone
Bangalore

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	Sri. N Lokanath Reddy	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	**Proposed Use**	Concrete	
Sample Location	Plant/At site	**Date of Sampling**	02.05.19	
		Date of Testing	02.05.19	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	270	270	2.70	97.30	95 - 100
10.00 mm	4850	5120	51.20	48.80	25 - 55
4.75 mm	4225	9345	93.45	6.55	0 - 10
Pan	655	10000			

Remarks : Satisfactory / Not Satisfactory

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara	
Consultants	TEJUS CONSULTANTS	
Contractor	Sri. N Lokanath Reddy	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size	Proposed Use	Concrete
Sample Location	At Site/Plant	Date of Sampling	02.05.19
		Date of Testing	02.05.19

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	542	542	5.42	94.58	90-100
10.0	4625	5167	51.67	48.33	40-85
4.75	4523	9690	96.90	3.10	0-10
Pan	310	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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Project Division
Yelahanka Zone
Bangalore

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project:	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client:	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Grade of concrete:	M25
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	02.05.19	30.05.19	28 days	8.132	22500	575	25.56	25.56
2	02.05.19	30.05.19	28 days	8.140	22500	580	25.78	
3	02.05.19	30.05.19	28 days	8.142	22500	570	25.33	

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Asst. Executive Engineer
Project Director
Vishwanath Zone
Bangalore

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Test Report on Cement

Project	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Sample ID	Cement
Date of Sample Tested	28.05.19
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	39	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	251	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	2.000	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	29.00%	25 % to 35

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Project Division
Yelahanka Zone
Bangalore

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Test Report on Cement

Project:	Construction of Samudhaya Bhavan at Varadarajanagara and Construction of RO Plant and Drilling of Borewells with Pipeline in Ward No.11 Kuvempunagara
Client:	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. N Lokanath Reddy
Sample ID	Cement
Date of Sample Tested	03.06.19
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	37 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	355 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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Project Division
Yelahanka Zone
Bangalore